

IN THE CLAIMS:

Cancel Claims 35, 56, and 61 without prejudice, amend Claims 34, 36, 40, 53 and 57-59 as follows, and add Claims 67-74:

34.(Currently Amended) A soluble trauma-healing hemostatic cellulose fiber, comprising a ~~wherein at least one coagulation protein is imparted to at least one~~ natural or regenerated cellulose fiber that has been partially carboxymethylated to an extent such that degree of substitution of the hydroxyl groups in the glucose units constituting the cellulose molecule is 0.5- less than 1.0,

wherein three types of coagulation proteins being fibrinogen, thrombin and coagulation factor XIII are applied or chemically bonded to said fiber followed by drying,

such that said fiber possesses activity for accelerating a coagulation reaction of fibrin monomers converted from fibrinogen with thrombin and possesses activity for stabilizing agglutinates by cross-linking reaction with the coagulation factor XIII.

35. CANCELED

36. (Currently Amended) The fiber of claim 34 ~~35~~, wherein the coagulation protein is imparted by surface application to the carboxymethylated natural or regenerated cellulose fiber.

37. (Previously added) The fiber of claim 36, wherein the coagulation protein is applied by spraying a solution thereof onto the fiber.

38. (Previously added) The fiber of claim 36, wherein a mixture of all three proteins is imparted in a single application.

39. (Previously added) The fiber of claim 36, wherein said three proteins are consecutively imparted in individual applications.

40. (Currently amended) The fiber of claim 34 ~~35~~, wherein said protein is imparted by chemical bonding to the carboxymethylated natural or regenerated cellulose fiber.

41. (Previously added) The fiber of claim 40, wherein said fiber is treated with carbodiimide prior to the reaction with the protein.

42. (Previously added) The fiber of claim 40, wherein a mixture of all three proteins is chemically bonded in a single pass.

43. (Previously added) The fiber of claim 40, wherein said three proteins are chemically bonded in consecutive passes.

44. (Previously added) The fiber of claim 34, wherein the fiber is pulverized after the protein is imparted.

45. (Previously added) The fiber of claim 39, wherein a plurality of said thus-treated fibers are individually pulverized and then mixed.

46. (Previously added) The fiber of claim 45, wherein the proteins are applied by spraying solutions thereof.

47. (Previously added) The fiber of claim 43, wherein a plurality of said thus-treated fibers are individually pulverized and then mixed.

48. (Previously added) The fiber of claim 47, wherein the fibers are treated with carbodiimide reagent prior to the chemical reaction.

49. (Previously added) A drawn thread array having a number of single threads of the fiber according to claim 34 loosely twisted together.

50. (Previously added) A woven fabric comprising a plain or twill woven array of claim 49.

51. (Previously added) The fabric of claim 50, wherein the arrays of the drawn fibers have a thickness of 20-100 Denier.

52. (Previously added) Gauze-like material obtained by shoddy wool treatment of fibers of claim 34.

53. (Currently amended) A method of producing a soluble trauma-healing hemostatic cellulose fiber, comprising the steps of:

treating a natural or regenerated cellulose fiber with an aqueous sodium hydroxide solution,

reacting the thus-treated fiber ~~fibers~~ with a monochloro acetic acid solution for carboxymethylation to an extent such that degree of substitution of hydroxyl groups of the glucose units constituting the cellulose molecule (etherification degree) is 0.5 to less than 1.0,

subsequently refining the fiber ~~fibers~~ and then imparting or chemical bonding three coagulation proteins which are fibrinogen, thrombin and coagulation factor XIII, to the refined cellulose fiber ~~by spraying~~, and

then drying the fiber.

whereby said fiber possesses activity for accelerating a coagulation reaction of fibrin monomers converted from fibrinogen with thrombin, and possesses activity for stabilizing the agglutinates by the cross-linking reaction with the coagulation factor XIII.

54. (Previously added) The method of claim 53, wherein the proteins are imparted by spraying a solution of all three proteins in a single pass.

55. (Previously added) The method of claim 53, wherein the proteins are imparted by spraying respective solutions of each said protein in consecutive passes.

56. Cancelled

57. (Currently Amended) The method of claim 53 56, wherein the proteins are imparted by chemical bonding with a single solution of all three proteins in a single pass.

58. (Currently Amended) The method of claim 53 56, wherein the proteins are imparted by chemical bonding with respective solutions of each said protein in consecutive passes.

59. (Previously added) The method of claim 53, comprising the additional step of pulverizing the fiber after drying.

60. (Previously added) The method of claim 55, comprising the additional step of after drying, pulverizing and then mixing thus-produced fibers.

61. Cancelled

62. (Previously added) The method of claim 53, wherein the reaction with monochloro acetic acid is carried out for 4-18 hours.

63. (Previously added) The method of claim 53, comprising the additional step of loosely twisting threads of said fiber together to form a drawn thread array.

64. (Previously added) The method of claim 63, comprising the additional step of plain or twill weaving the drawn thread array to form a woven fabric.

65. (Previously added) The method of claim 63, wherein the drawn fiber array is formed with a thickness of 20-100 Denier.

66. (Previously added) The method of claim 53, comprising the additional step of carrying out shoddy wool treatment of the fibers to form a gauze-like material.

67. (new) The fiber of claim 37 possessing fibrinomer absorptivity at 350 nm of at least 0.4 after 3 minutes of application.

68. (new) The fiber of claim 40 possessing fibrinomer absorptivity at 350 nm of at least 0.4 after 3 minutes of application.

69.(new) The fiber of claim 37 possessing a maximum platelet agglutination rate of at least about 94% and an agglutination % 1 minute after addition of at least about 92%.

70.(new) The fiber of claim 40 possessing a maximum platelet agglutination rate of at least about 94% and an agglutination % 1minute after addition of at least about 92%.

71.(new) The fiber of claim 37 possessing an adhered cell count for fibronectin, vitronectin, laminin, collagen or fibrin of at least about 285 after 6 hours of application.

72.(new) The fiber of claim 40 possessing an adhered cell count for fibronectin, vitronectin, laminin, collagen or fibrin of at least about 285 after 6 hours of application.

73.(new) The fiber of claim 37, possessing a mean hemostasis time of about 10-11 seconds after application to an approximately 1 square cm. trauma site in livers of rats.

74. (new) The fiber of claim 40, possessing a mean hemostasis time of about 10-11 seconds after application to an approximately 1 square cm. trauma site in livers of rats.